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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional): MR2919-17

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]

on _____

Signature _____

Typed or printed name _____

Application Number	Filed
09/416,098	12 October 1999

First Named Inventor: Teresa H. Meng, et al.

Art Unit	Examiner
2634	S. Liu

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

☒ attorney or agent of record. 40,262
Registration number _____

☐ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34 _____

Signature

Jun Y. Lee
Typed or printed name

(410) 465-6678
Telephone number

9/29/2005
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.
Submit multiple forms if more than one signature is required, see below*.

☒ *Total of 2 forms are submitted.

MR2919-17

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Teresa H. Meng, et al.	: Group Art Unit:
Serial No:	09/416,098	: #2634
Filed:	12 October 1999	:
Title:	METHOD AND APPARATUS FOR ELIMINATING THE EFFECTS OF FREQUENCY OFFSETS IN A DIGITAL COMMUNICATION SYSTEM	: Examiner: : S. Liu :

REMARKS IN SUPPORT OF PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop - AF
Honorable Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Amendment filed by Applicants on 18 January 2005, the Examiner issued a final Office Action rejecting all pending Claims. The Examiner rejected the Claims on both formal and substantive grounds, stating Applicants' arguments addressing the earlier rejections to be mooted by the new grounds of rejection.

The Examiner first rejected pending Claims 1-2, 4-5, 8-9, 15-16, 18-19, 22-23, and 34-35 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention, for the reason of "the received" signal and "detected" signal recited in independent Claims 1, 15, 34, and 35 being unclear. The Specification was also objected to for failing to provide proper antecedent basis in this regard, by not clearly disclosing what "the received signal" mentioned therein actually refers to.

Interpreting on this basis the comparison of received and detected signals recited in independent Claims 1, 15, 34, and 35 to be generally a comparison between any two signals, the Examiner rejected Claims 1-2, 4-5, 8, 15-16, 18-19, 22, 29, 31, and 34-35 as being anticipated by

the newly-cited Jones, et al. reference. The Examiner additionally rejected Claims 9, 23, and 31 under 35 U.S.C. § 103(a) as being unpatentable over Jones, et al. in view of the previously-cited Theus, et al. reference. The Examiner did not reassert any of the other references previously cited in earlier rejections.

Contrary to the Examiner's assertions, it is respectfully submitted that the Examiner's rejections are unfounded for at least the following reasons:

1. When properly read in light of the Specification and Drawings, recitations of "the received" signal and "detected" signal in Claims 1, 15, and 34-35 are sufficiently clear and definite, and the Specification does provide proper antecedent basis for the claimed subject matter; and,

2. The primarily-cited Jones, et al. reference not only fails to teach a number of the claimed features for which it is cited, the reference actually teaches actively against them.

1. Indefiniteness/Lack of Antecedent Basis

The "received" and "detected" signals are specifically mentioned and described by the Specification at least with reference to FIGS. 2 and 4 of the Drawings. The paragraph at page 9, lines 8-18 of the Specification, for example, describes the remote unit 100 illustrated in FIG. 2. The paragraph makes reference to the "Data detection" block "208" and the "Received signal from the base station" schematically shown in the figure to explain that:

> Further offset information can be determined during data detection by continuous comparison of the received signal and detected signal in block 208, which information can be used to further refine the remote unit carrier frequency.

The "received signal" is plainly seen to be the signal expressly labeled as such in FIG. 2 (at the input of the carrier frequency shift block 204); and, the "detected signal" is just as plainly seen to

be the signal detected "in block 208" in that figure. The terms "received" and "detected" are similarly used in describing corresponding signals in the alternate embodiment schematically illustrated in FIG. 4. No otherwise contrary or inconsistent use of the terms is made anywhere else in the Specification or Claims. The terms as used in the noted Claims are hardly indefinite, therefore, when properly considered in light of the Specification and associated Drawings.

Regarding the stated lack of clarity in the Specification's particularly-noted mention of "the received signal," the immediately preceding paragraphs beginning at page 8, line 8 make clear that the discussion ensuing from that point relate to the "remote unit 100 ... as illustrated in FIG. 2" (page 8, line 10). FIG. 2 plainly shows the "Received signal" in the disclosed embodiment as arriving "from the base station" to enter the carrier frequency shift block 204 of the remote unit 100. Again, no other contrary or inconsistent use is made of the term "received signal" either in this figure, or in any description relating thereto which might yield ambiguity or confusion.

2. <u>Deficient and Contrary Teachings of the Primarily-cited Jones, et al. Reference</u>

The claimed device enables fast and reliable communication between first and second transceiver units by, among other things, adjusting a common frequency at the sending transceiver unit by an amount deemed appropriate for the other (receiving) unit. The sending transceiver unit determines the adjustment offset based at least in part upon a signal first received from such other unit, and accordingly adjusts the outgoing signal so as to - "in preemptive manner" - substantially reduce the offset effects ultimately perceived by the other receiving transceiver unit. The need to take corrective measures at the receiving transceiver unit (to remove such offset effects) is thereby largely obviated. This feature, coupled with others recited

by each of the independent Claims presently pending enables uniquely efficient and reliable communication between transceiver units.

The Jones, et al. reference primarily relied upon by the Examiner teaches actively away from such claimed device in some rather fundamental ways. First, while Jones, et al. does provide for the correction of certain synchronization errors during communication, it does so specifically by equipping the receiving unit to itself carry out the required corrective action on its received signals. The transmitting unit contributes by including in the transmission certain "special synchronization bursts," but it does so explicitly "to facilitate" the receiver's aligning with the transmitter's burst timing and carrier frequency (column 3; lines 27 and 30). The transmitter also contributes by including as well a "supplemental cyclic prefix," but it again does so "to facilitate" the receiver's synchronizing to the transmitter's burst timing and/or transmitter carrier frequency, as the reference specifies (column 3 lines 41-42 and 43-44). The transmitter itself does not apply any preemptive correction to the underlying signal.

As FIG. 2 of Jones, et al. clearly shows, it is the receiver's own synchronization system which, upon receiving the given signal, carries out the correction required to preserve proper synchronization (with the transmitter), making use of the special synchronization burst and supplemental cyclic prefix provided with the transmissions. Certainly, this contemplates that no synchronization correction has been applied to the transmission already by the transmitter, lest the receiver then cause harmful overcorrection. Jones, et al. thus teaches quite specifically against any corrective measures being actually applied "in preemptive manner" by the transmitting unit, as each of Applicants' pending Claims clearly recites.

Having given no effect to the terms "received" and "detected," the Examiner took such signals to represent any two signals, and found correlation between the claimed "means for

detecting" an offset "responsive to a continuous comparison of received and detected signals" and none other than the variable frequency oscillator / mixer combination shown in Jones et al.'s FIGS. 1 and 2. The correlation quickly unravels when the terms are accorded their proper scope in light of the Specification and Drawings, as discussed above. Moreover, Jones, et al.'s provision of special synchronization bursts and a supplemental cyclic prefix in its transmissions - for recovery and use as such by the receiver - represents an approach that is quite contrary to one wherein an adjustment offset is actually "detect[ed]," let alone to an approach wherein the offset is detected "responsive to a continuous comparison of received and detected signals" of a given transceiver unit for preemptive application to a subsequent signal transmission.

Given the deficient and contrary teachings of the Jones, et al. reference, the secondarily-cited Theus, et al. reference is found to be quite ineffectual to the present patentability analysis. Theus, et al. was cited simply for disclosing a digital adjustable crystal oscillator. The reference is lacking in any other relevant teaching and therefore wholly fails to remedy Jones, et al.'s deficiencies.

It is respectfully submitted, therefore, that the rejections set forth against the pending Claims in the presently outstanding Final Office Action are not well founded. Accordingly, it is believed that the subject Patent Application is in condition for allowance, and such action is respectfully requested.

Respectfully submitted,
For: ROSENBERG, KLEIN & LEE

Jun Y. Lee
Registration #40,262
Dated: 9/29/2005

Suite 101
3458 Ellicott Center Drive
Ellicott City, MD 21043
(410) 465-6678
Customer No. 04586